

### REMARKS

This is in response to the Office Action that was mailed on March 8, 2007. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in this application (claim 24 stands allowed). Claim 11 is cancelled, without prejudice. The dependency of claim 12 (and thus also of claims 13-20) is changed from claim 11 to claim 43. Also, claim 43 is corrected to restore the language "dimensioned to have the liquid transport through the distributor and inflow channels effected by capillary forces." It is recalled that claim 43 was presented in the Amendment filed on December 13, 2006 as "corresponding to claim 11 and amended ... to require 'a plurality of reaction chambers' instead of 'at least one reaction chamber'." No new matter is introduced by the present Amendment, and – since the Examiner has already considered the patentability of claim 43 – no new issues are raised by this Amendment. Entry of this Amendment, in order to place the application into condition for allowance or into better condition for appeal, is earnestly solicited. With this Amendment, claims 12-20, 24, and 43 are pending in the application.

#### Anticipation

Claims 11-20 were rejected under 35 U.S.C. §102(b) as being anticipated by US 4,963,498 to Hillman et al (Hillman). Claim 11 is cancelled, and claims 12-20 are rewritten to depend from claim 43, which was not rejected over Hillman. Accordingly, this ground of rejection is obviated by the present Amendment.

Double patenting

Claims 11-20 and 43 were rejected on the ground of obviousness-type double patenting over claims 1-29 of US 7,094,354 B2. It is respectfully submitted that this ground of rejection does not apply to the claims as amended herein.

According to MPEP 804, "The doctrine of double patenting seeks to prevent the unjustified extension of patent exclusivity *beyond the term of a patent.*" (Emphasis supplied.) In the present situation, US 7,094,354 B2 will expire on December 19, 2022. Any patent granted in the present application, however, will expire on November 13, 2000. Thus, the present application will not extend patent exclusivity beyond the term of the patent. There is, therefore, no justification for a double patenting rejection in the present situation.

In any case, the present application and US 7,094,354 B2 relate to different subject matters. The claims of US 7,094,354 B2 are directed to an apparatus and method for the separation of a mixture of a liquid and particles in a microfluidic device. In contrast, the presently claimed invention has nothing to do with the separation of particles in a microfluidic device. Instead, the present claims are drawn to a sample support.

During a telephonic interview with Applicants' representative Richard Gallagher on June 5, 2007, Examiner Alexander questioned whether the "exclusively by capillary force" limitation in generic claim 43 applies to the apparatus, or just to a method of using the apparatus. Claim 43 requires that "in each reaction chamber, said *surfaces* in the entrance region of the inflow channel which are provided for delimiting said cavity, *are configured* as a means for generating a capillary force causing the sample liquid to flow from the inflow channel into the reaction chamber exclusively by capillary force." Thus it is clear that a

structural feature of the claimed apparatus – the surface configuration in question – is what enables the apparatus to provide the recited exclusive flow force.

Additionally, unlike the claims of the patent, the present claims require a plurality of reaction chambers – that is, more than one reaction chamber is required in the present invention. The Examiner argues that “duplication of connecting channels to achieve the well known and expected function of dissipating gas, would have been within the skill of the art,” citing *St. Regis Paper Co., v. Bemis Co., Inc.*, 193 USPQ 8, 11 (7<sup>th</sup> Cir. 1977), *cert. denied*, 195 USPQ 465. Applicants have carefully considered page 11 of the cited decision, and do not find therein anything about duplication of connecting channels or dissipating gas. Instead, the decision in question is concerned with paper bags. The crux of the *St. Regis Paper* decision is summarized in the court’s statement that “It is difficult to conceive of a more obvious method of strengthening a certain type of bag than putting one bag inside of another”. 193 USPQ at 11.

Applicants respectfully point out that it is improper for the Examiner to take official notice in the present rejection of the alleged fact that “duplication of connecting channels [achieves] the well known and expected function of dissipating gas.” Such an assertion of a technical fact “must always be supported by citation to some reference work recognized as standard in the pertinent art.” See MPEP 2144.03, citing *In re Ahlert*, 165 USPQ 418, at 420-421. If the Examiner is relying on personal knowledge to support his finding of what is known in the art, the Examiner must provide a Declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2).

Moreover, the claims of US 7,094,354 B2 contain many limitations not included in the

claims of the present application. For instance, independent claims 1, 12, and 25 in the patent require “a depth to particle diameter ratio of about 5/1 to 100/1, said ratio being chosen to avoid clogging of the chamber with said particles and as a function of the force to be applied to said mixture” and “a wall surface having a surface energy equal to or less than the surface energy of said particles to facilitate separation of said sample by attraction of said particles to said wall surface.” No such features are required in the present invention.

There is a clear line of demarcation between the claims now pending in this application and the claims in US 7,094,354 B2. That line of demarcation includes the plurality of reaction chambers required in the present invention, a feature not found in the claims of the patent. The line of demarcation between the present claims and those of the patent also includes “a depth to particle diameter ratio of about 5/1 to 100/1, said ratio being chosen to avoid clogging of the chamber with said particles and as a function of the force to be applied to said mixture” and “a wall surface having a surface energy equal to or less than the surface energy of said particles to facilitate separation of said sample by attraction of said particles to said wall surface,” neither of which features is required in the present invention.

The Examiner has failed to cite prior art demonstrating that persons of ordinary skill in the art would be motivated to change the technology recited in the claims of the patent to coincide with any claim herein. Accordingly, it is respectfully submitted that the obviousness-type double patenting rejection of record is not sustainable, and should be withdrawn.


### Conclusion

Withdrawal of all rejections of record – that is, the double patenting rejection and the anticipation rejection – is in order and is earnestly solicited. If there are questions concerning

this application, the Examiner is invited to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008.

Dated: June 20, 2007

Respectfully submitted,

By 

Marc S. Weiner

Registration No.: 32,181

BIRCH, STEWART, KOLASCH & BIRCH, LLP

Falls Church, Virginia

(703) 205-8000

Attorney for Applicant